

## **INTRODUCTION**

In response to a request by the Office of Planning, the District of Columbia Department of Transportation (DDOT) has conducted a study evaluating the traffic impacts associated with different levels of development on the southern half of square 37 in the Northwest section of the District of Columbia. The site is located north of L Street N.W. between 23<sup>rd</sup> Street and 24<sup>th</sup> Street N.W. This report summarizes the findings and recommendations of the Traffic Impact Study for Square 37. It was written by the contractor that provides operational assistance to the District Department of Transportation with the assistance of Mr. Arthur Jackson of the District of Columbia Office of Planning (OP). Mr. Jackson wrote the Study Background section of this report. In this report, the contractor is referred to as the Study Team. The Technical Review Committee (TRC) for this study included representatives from DDOT, OP and the Office of Deputy Mayor for Planning & Economic Development (DMPED).

## **STUDY BACKGROUND**

The impetus for this transportation study was a zoning consistency review of the southern half of Square 37 undertaken by the District of Columbia Office of Planning (OP). Lots 810, 811, 831, 836, 837 and 855 are located south of the existing east-west alley, between 23<sup>rd</sup> Street and 24<sup>th</sup> Street, N.W., and currently zoned R-5-B. The Generalized Land Use Map of the District of Columbia Comprehensive Plan signed by the Mayor in December 1998, and amended in May 1999, designates this half of the square as:

- High-Density Residential – characterized by “high-density apartment buildings” as predominant uses, but may also include low, moderate, and medium density housing; and
- Medium-Density Commercial – characterized by “Shopping and service areas that generally offer a large concentration and variety of goods and services outside the Central Employment Area” as predominant uses.”

Since the existing R-5-B zoning does not allow future development of this intensity, OP began to consider how these properties should be rezoned to conform with the Plan. Part of this analysis includes consideration of the anticipated traffic impacts associated with development potentials under the selected zoning options: R-5-B (representing no zoning change), R-5-D, R-5-E, C-2-C, and CR. Two other options under consideration are R-5-D and R-5-E with a proposed High-Density Residential Neighborhood Commercial Overlay District that would allow neighborhood-serving retail uses (such as a tailor shop, valet, coin-laundry or library) in these residential zones.

Existing construction on the seven lots totals just over 62,400 square feet. However, this sum is not representative of the maximum development allowed under current zoning. Estimating this potential development “envelop” requires three components:

- Site Area: The seven lots total 58,628 square feet. Adding 30'x97' public alley (which would probably be closed if the adjacent properties are under a single ownership) brings the total potential site to 61,545 square feet.
- Floor Area Ratio (FAR): This multiplier is used in the Zoning Regulations to express the maximum gross floor area of building above-ground in terms of the size of the underlying lot (in square feet). This multiplier varies according to the zoning district, so the potential development square footage in any zoning district is the product of the site area x the applicable FAR.
- Land Use Mixture: Land use options including:
  - Residential development with on-site parking. The projected dwelling-unit count is based on 1,000 square feet per units, and the associated parking requirement is based on parking provisions in the regulations.
  - Commercial uses (including office as a principal use) based on the allowable FAR.
  - Commercial uses (excluding office as a principal use) based on a proposed High-Density Residential Neighborhood Commercial Overlay provision.
  - Retention of the existing 19,060 square-foot West End Library, or incorporation of similar facility into a redevelopment project.

Twenty-six development scenarios were developed for matter-of-right projects and planned unit developments in five zoning categories, consistent with requirements in the Zoning Regulations. The three options selected for detailed transportation analysis are shown in Table 1.

**Table 1**  
**Land Use Options Used in The Analysis of Transportation Impacts**

Zoning District		Applicable Provisions	Land Use	Square Footage	Dwelling Units	Required Parking
1	R-5-B	Planned Unit Development	Residential	165,575	166	83
			Library	19,060	N/A	32
			<b>Total</b>	<b>184,635</b>	<b>166</b>	<b>115</b>
2	CR	Matter-of-right	Residential	184,635	185	62
			Office	165,575	N/A	91
			Library	19,060	N/A	32
			<b>Total</b>	<b>369,270</b>	<b>185</b>	<b>185</b>
3	R-5-E	Planned Unit Development with Overlay	Residential	369,270	369	92
			Overlay Commercial	73,258	N/A	94
			Library	19,060	N/A	32
			<b>Total</b>	<b>461,588</b>	<b>370</b>	<b>218</b>

Mid-way through the study, a fourth scenario was identified as important for the evaluation of transportation impacts. Therefore, the evaluation of trip generation and a

qualitative assessment of the transportation impacts associated with this option were added to the study scope. The fourth option includes the following land uses:

- 185 residential units
- 135,575 square feet of retail
- 30,000 square feet of office
- 19,060 square feet library

## **STUDY SCOPE**

The main goal of the study was to assess the effects on transportation facilities associated with different levels of development at Square 37. The scope of the study was developed with input from the TRC, with the Office of Planning utilizing input from community groups in the area to refine the study scope. Residents also identified key transportation issues in the area. The study included the following tasks:

Task 1 – Evaluation of existing conditions.

Task 2 – Assessment of transportation impacts of new development projects planned or approved in the area surrounding the site.

Task 3 – Mitigation measures required to address existing and projected deficiencies.

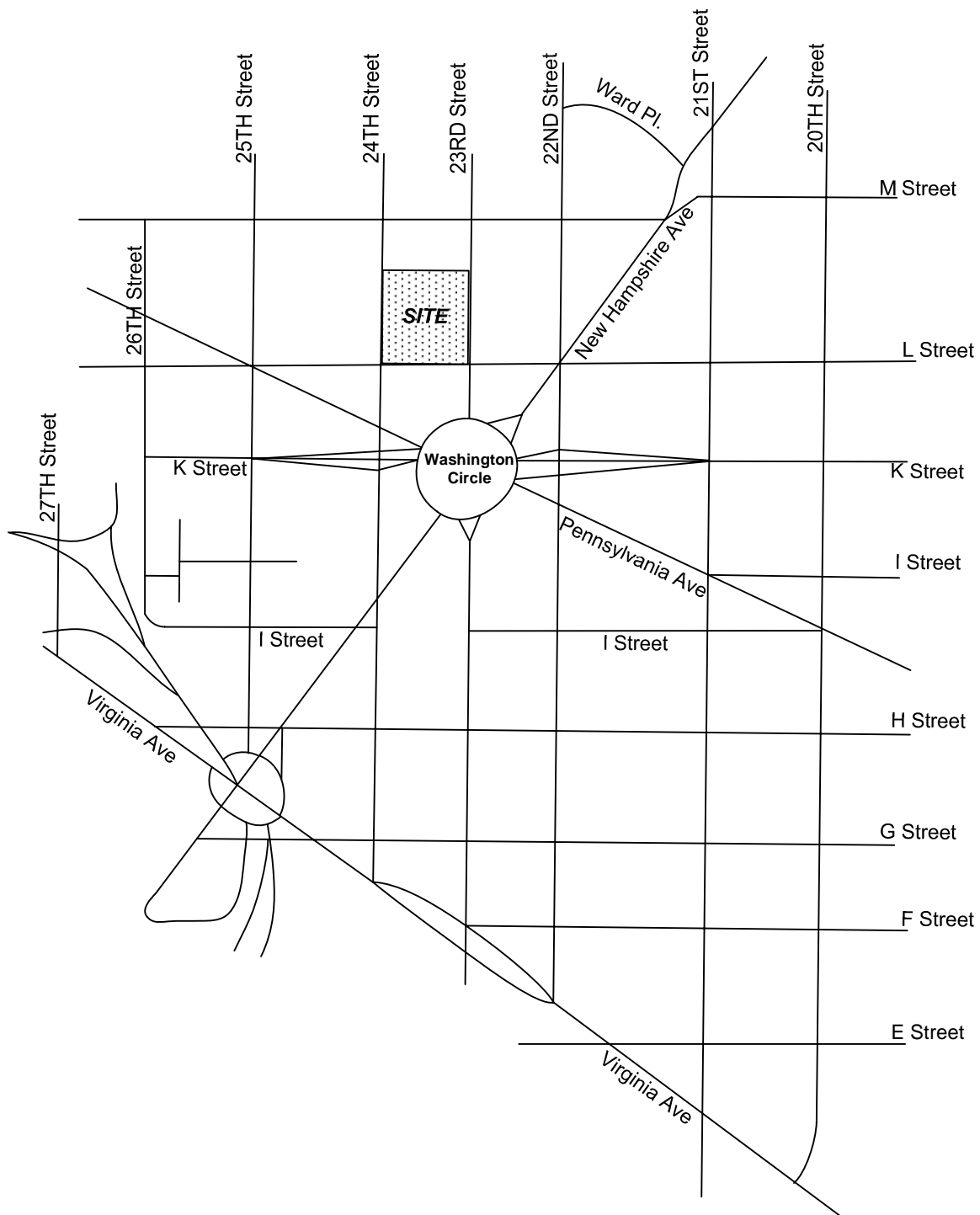
Task 4 – Evaluation of future conditions with proposed Square 37 rezoning. This includes an assessment of whether the development scenarios would exasperate the impacts.

Task 5 – Development of final recommendations. This includes an assessment on whether the proposed development scenarios at Square 37 require additional mitigation.

Task 6 – Documentation and public presentations.

Field work for the study was conducted between the months of November 2001 and May 2002. The study area, shown in Figure 1, is bounded by M Street to the north, Virginia Avenue to the south, 26<sup>th</sup> and 27<sup>th</sup> Streets to the west and 20<sup>th</sup> Street to the east. Square 37 is located on L Street between 23<sup>rd</sup> and 24<sup>th</sup> Streets. This report:

- Summarizes the assessment of existing conditions,
- Summarizes the assessment of future conditions with and without new development at Square 37,
- Describes mitigation measures needed to address existing deficiencies, and
- Describes mitigation measures needed to address forecast deficiencies with and without the rezoning.



Not to Scale

September, 2002



**Square 37  
Rezoning**

**Study Area**

**FIGURE  
1**